NEW JERSEY STATE HIGHWAY DEPARTMENT

DIVISION OF PLANNING AND ECONOMICS

PROJECTS BASED ON BOND ISSUE AND NET NORMAL INCOME

By

O. Herbert Fritzsche

February 5, 1948

Revised May 10, 1948

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DIVISION OF PLANNING AND ECONOMICS

PROJECTS PROPOSED FOR $150,000,000 BOND ISSUE AND NORMAL REVENUE FOR SIX YEARS

In accordance with the request from Governor Driscoll, this Division has prepared a list of projects which could be undertaken and completed by the State Highway Department if the funds of a $150,000,000 bond issue, in addition to the normal revenues for the next six years, were put at the disposal of the Department. This total is estimated at $300,300,000.

The available funds have been divided into four items:

1. New Projects on new alignment.
2. Improvements to existing routes.
3. Miscellaneous Betterments.
4. Contingency Fund.

The New Projects consist of major undertakings, which are intended to give the road user completed projects by the end of the six year period and are part of the Comprehensive Plan for the State.

Since we must protect and keep adequate the existing highway system, the second part lists improvements to this existing system as indicated in the 1948-1949 Substitution Projects. This listing should not be considered as a list dedicated to the funds but should be kept elastic for substitution of projects, should this be found desirable or advisable.

Since the Budget Request for 1948-1949 was reduced by approximately 25 million dollars, the suggested list of projects for the next six year period includes those items which must be omitted from the list of construction projects under the curtailed appropriation.

Item 3 consists of miscellaneous betterments which are small in scope and cover such items as drainage, small pavement widening, resurfacing, etc., and have not been listed. This allocation amounts to $15,000,000 and was calculated at the rate of $2,500,000 per year for six years and will be used in the various parts of the State where the need arises.

The Contingency Fund is suggested to meet unforeseen emergencies in construction, and to provide the unexpected purchase of right-of-way where isolated proposed improvements of privately owned property may increase the cost of a future highway improvement.

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In the undertaking of a program of this size and of which such a large part is in densely populated areas, thought and planning should be devoted to the necessary acquisition of rights-of-way in these urban areas.

Vacant land poses no difficulty. However, in these times, the housing shortage and the necessary removal of homes for such projects are the cause of badly needed urban relief being delayed or at a complete standstill in other States.

By investigation of the areas well in advance of the construction of such projects, the loss of ratables to a municipality may be cut to a minimum and the usual delay to the project itself may be eliminated.

This may be done by making a survey of the area along a projected route over a reasonable distance of that route, and locating, on maps, all of the vacant ground to which houses could be moved.

The State could purchase this land after negotiation with owners of improved property along the proposed right-of-way, and the need therefor demonstrated. The dwelling can then be moved to a new location and these owners reimbursed for their inconvenience.

To accomplish this, the State could temporarily employ a few persons for the survey in each area and make the initial survey. College students on vacation would make a good group for this work.

However, it would be necessary for the Legislature to pass laws to enable the State Highway Commissioner to acquire by purchase, gift or condemnation, the various plots away from the project on which to move the houses obstructing the construction of a project, and the right to assign such plots in exchange for improved real estate required for the construction project.

This should in part provide for those persons unable to find new locations. Some of the affected property owners will no doubt wish to receive full value for their properties and relocate in another or adjacent municipality. These should not be an impedance to the project.

The above is one method of attacking the problems of housing and loss of ratables to a municipality. Investigation may reveal others, but it should result in less cost to the State and less inconvenience to the owners than the outright purchase or condemnation of the properties with the subsequent destruction of the improvements. Were such a plan to succeed 100%, the ratable loss to a municipality would amount to the assessed valuation of the land only. This as a rule would be insignificant when compared to the valuations placed on the improvements on the land.

NEW PROJECTS

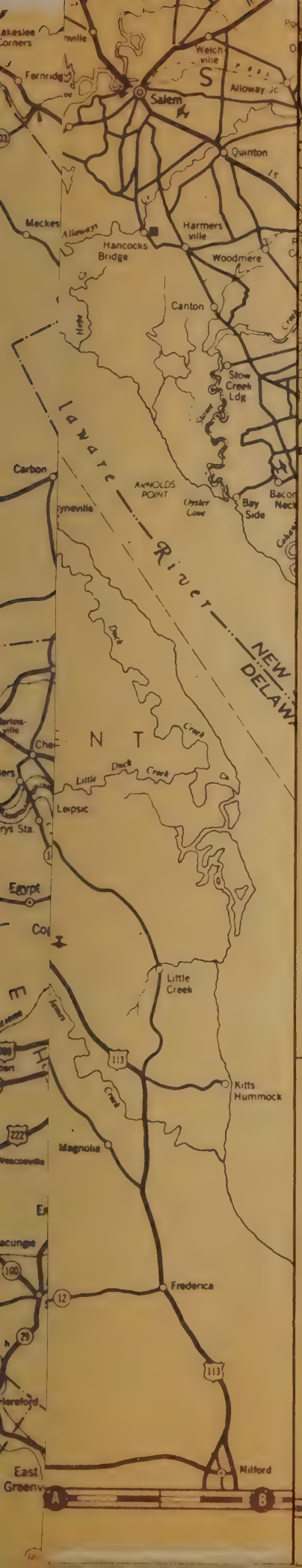
Item	Route	Location	Est. Cost	Total
1	4 Pkwy.	Middlesex---Union Counties	$13,200,000	
		Passaic County	7,000,000	
		Essex County	44,000,000	
2	100 & S100	Middlesex-Union Counties	31,400,000	
		Trans-Meadow Rt.-Essex-Hudson Counties	29,000,000	
		Hudson-Bergen Counties	19,055,000	
3	North-South & Camden Conn.	Camden County	21,500,000	
4	26 Ext.	Trenton, Mercer County	5,500,000	
5	S-28	Spur, New Brunswick, Middlesex County	1,500,000	
6	East-West	Facilities, Essex County (Partial)	25,000,000	
7		Palisades Parkway, Bergen County		
8		Bayonne Freeway, Hudson County	4,500,000	
9	25-A	Completion to Clifton Ave.,Essex County	6,555,000	
10	S-4-B	Maple Ave. to Goffle Rd.,Bergen-Passaic Co.	2,000,000	
11	21	Clay Street to Rt. 53-Essex-Passaic Co.	15,000,000	
12	300	Rt. 44 to Rt. 48-Salem County	3,000,000	$228,210,000

IMPROVEMENTS TO EXISTING ROUTES

13	3	Secaucus By-Pass - Hudson County	$870,000	
14	6	Pine Brook to Rt. 23-Essex-Passaic Co.	3,000,000	
15	S-3	Removal of existing Passaic River Bridge-Passaic and Bergen Counties	150,000	
16	28-29	Connection at Somerville-Somerset County	2,600,000	
17	29	Chimney Rock-Somerville - Somerset County	2,000,000	
18	30	Trenton to Pennington-Mercer County	500,000	
19	44	Dualization & Realignment-Gloucester Co.	9,500,000	
20	25	Bordentown-Yardville, Burl.-Mercer Co.	3,125,000	
21	25	Haddonfield Rd.,Pennsauken-Camden County	800,000	
22	25	Bridgeboro Dualization-Burlington County	800,000	
23	25	Burlington Dualization-Burlington County	800,000	
24	18	Old Bridge to Rt. 4-Middlesex & Mon. Co.	1,000,000	
25	37	Island Hts. Bridge - Ocean County	3,000,000	
26	17	N.Y.State Line-Franklin Tpk.-Bergen Co.	2,500,000	
27	17	Dualization & Overpasses-Bergen County	1,300,000	
28	23	Smith's Mills to Hamburg-Pass.-Morris-Sussex Counties	3,000,000	
29	6	Ft. Lee to Little Ferry-Bergen County	2,150,000	
30	4	Improvement Ft. Lee to Rt. 17-Bergen Co.	600,000	
31	4	Parkway-Toms River By-Pass-Ocean County	2,000,000	
32	S-31	Branchville-Ross'Corner-Sussex County	870,000	
33	28	Musconetcong Mt.Imp.-Hunterdon County	10,000,000	
34	56	Absecon Boulevard-Atlantic County	2,500,000	
35	43	Improvement of Rt. 43-Camden-Atl.Co.	847,500	
36	42	Improvement of Rt. 42-Glou.-Atl.Co.	847,500	$54,760,000

MISCELLANEOUS BETTERMENTS

	6 years at $2,500,000	$15,000,000
	Contingency Fund	$2,330,000
		$300,300,000



NEW JERSEY HIGHWAYS

NEW JERSEY STATE HIGHWAY DEPARTMENT

DIVISION OF PLANNING & ECONOMICS

PROJECTS PROPOSED UNDER $300,000,000 6 YEAR PROGRAM

Legend

- UNDER CONSTRUCTION OR CONSTRUCTED
- PROPOSED NEW PROJECTS
- PROPOSED IMPROVEMENTS TO EXISTING ROUTES
- PROPOSED TOLL ROUTE

MAY 11, 1948

FIGURE 1

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20 Vesey Street, New York 7, N.Y.

LITHO. IN U. S. A.

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Port Jervis
Matamoras
Chester
Stroudsburg
Easton
Phillipsburg
Sussex
Somerville
Bound Brook
New Brunswick
Butler
Paterson
Passaic
Hackensack
Jersey City
Newark
Elizabeth
Bayonne
Yonkers
New York
Brooklyn
Bronx
Staten Island
Long Branch
Red Bank
Freehold
Princeton
Trenton
Allentown
Bethlehem
Pocono Mountains
Delaware Water Gap
High Point Park
Stokes State Forest
Swartswood State Park
Stephens State Park
Worthington State Forest
Ringwood Manor State Park
Palisades Interstate Park
Bear Mt. Bridge
Tappan Zee
Hudson River
Raritan Bay
Sandy Hook Bay
Lower New York Bay
Delaware River
Lake Wallenpaupack
Lake Hopatcong
Greenwood Lake
Monroe
Orange
Rockland
Putnam
Westchester
Sussex
Warren
Hunterdon
Somerset
Middlesex
Monmouth
Ocean
Burlington
Bucks
Northampton
Lehigh
Wayne
Pike
Monroe
Carbon
Berks
Morris
Essex
Union
Hudson
Bergen
Passaic

Hellertown
Durham
Lanark
Leithsville
Springtown
Emmaus
Center Valley
Coopersburg
Limeport
Shimersville
Kintnersville
Ferndale
Pleasant Valley
Richland town
Quakertown
Spinnerstown
Milford Square
Trumbauersville
East Greenville
Pennsburg
Red Hill
Green Lane
Sumneytown
Telford
Souderton
Harleysville
Zieglerville
Hatfield
Lansdale
Center Sq
Sellersville
Silverdale
Perkasie
Doylestown
Chalfont
New Britain
Furlong
Warrington
Jamison
Wrightstown
Jacksonville
Richboro
Newtown
Yardley
Langhorne
Oxford Valley
Penndel
Milford
Upper Black Eddy
Frenchtown
Uhlertown
Oak Grove
Baptistown
Kingwood
Barbertown
Locktown
Tinicum
Ottsville
Harrow
Ferndale
Pipersville
Point Pleasant
Raven Rock
Stockton
Lumberville
Mt Airy
Rockhill
Sand Brook
Headquarters
Sergeantsville
Ringoes
Lambertville
New Hope
Lahaska
Buckingham
Danboro
Mt Rose
Harbourton
Rosedale
Princeton
Aqueduct
Pennington
Titusville
Washington Crossing
Washington Crossing State Park
Pleasant Valley
Ackors Corner
Centerville
Marshalls Cor
Scotts Cor
Prospect Plains
Cranbury
Cranbury Sta
Dutch Neck
Clarksville
Locust Cor
Edinburg
Hamilton Sq
Robbinsville
Windsor
Hightstown
Manalapan
Englishtown
Freehold
Tennent
Colts Neck
Holmdel
Middletown
Keyport
Matawan
Aberdeen
Hazlet
Atlantic Highlands
Highlands
Sea Bright
Monmouth Beach
Long Branch
West End
Elberon
Deal
Allenhurst
Loch Arbour
Asbury Park
Ocean Grove
Bradley Beach
Avon by the Sea
Belmar
South Belmar
Spring Lake
Spring Lake Hts
Sea Girt
Manasquan
Point Pleasant Beach
Point Pleasant
Bay Head
Brielle
Normandy Beach
Chadwicks
Lavallette
Ortley Beach
Seaside Heights
Seaside Park
Island Heights
Toms River
Pine Beach
Ocean Gate
Bayville
Pinewald
Molly Park
Lanoka Harbor
Forked River
Waretown
Barnegat Beach
Barnegat
Barnegat City
Love Ladies
High Point
Harvey Cedars
Surf City
Ship Bottom
Long Beach Island
Cedar Run
Manahawkin
Stafford Forge
Mayetta
Staffordville
Harrisville
West Creek
Bass River State Forest
Green Bank State Forest
Penn State Forest
Carranza Memorial State Park
Lebanon State Forest
Jackson State Forest
Allaire State Park
Fort Dix
Pemberton
Browns Mills
New Lisbon
Whitesbog
Birmingham
Mt Holly
Mt Laurel St Pk
Hartford
Masonville
Riverton
Cinnaminson
New Albany
Delanco
Riverside
Beverly
Edgewater Pk
Burlington
Bristol
Eddington
Andalusia
Croydon
Florence
Edgeley
Fieldsboro
Roebling
Bordentown
Columbus
Jacksonville
Chesterfield
Marshalls Cor
Hornerstown
Cassville
Archers Cor
Colliers Mills
Jacobstown
Wrightstown
Cookstown
Sykesville
Fairmount
Allentown
New Canton
Edgebrook
Yardville
Hamilton Sq
Windsor
Robbinsville

NEW JERSEY HIGHWAYS

NEW JERSEY STATE HIGHWAY DEPARTMENT

DIVISION OF PLANNING & ECONOMICS

PROJECTS PROPOSED UNDER

$300,000,000 6 YEAR PROGRAM

⇒Legend⇐

- UNDER CONSTRUCTION OR CONSTRUCTED
- PROPOSED NEW PROJECTS
- PROPOSED IMPROVEMENTS TO EXISTING ROUTES
- PROPOSED TOLL ROUTE

MAY 11, 1948

Additional copies of this map may be procured by addressing
A LEE GROVER
Secretary
State Highway Department
Trenton, New Jersey

FIGURE 1

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20 Vesey Street, New York 7, N.Y.

LITHO IN U.S.A.

A
B
C
D
E
To Carbondale
Lake Wallenpaupack
To Hawley
To Honesdale
To Honesdale
611
Moscow
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507
Greentown
PROMISED LAND STATE FOREST PARK
WAYNE
Dalevile
Newfoundland
402
Lake Laura
GEO W CHILDS STATE FOREST PARK
Angels
S.Sterling
507
290
390
Laanna
Edgemere
Porters Lake
Gouldsboro
Gouldsboro Lake
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Skytop
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490
Canadensis
Tobyhanna
390
Mountainhome
Warrentown
Cresco
490
Pocono Summit
Mt.Pocono
Paradise Valley
Delaware
209
Monroe
Janiver

REVENUES FROM $150,000,000 BOND ISSUE

AND SIX YEAR NORMAL INCOME

Year	Normal Income	Bonds	2% Interest	Net Bonds	Yearly Bonds & Normal Income
1949-50	$22,500,000	$25,000,000		$25,000,000	$47,500,000
1950-51	23,700,000	25,000,000	- $500,000	24,500,000	48,200,000
1951-52	26,300,000	25,000,000	- 1,000,000	24,000,000	50,300,000
1952-53	27,200,000	25,000,000	- 1,500,000	23,500,000	50,700,000
1953-54	28,200,000	25,000,000	- 2,000,000	23,000,000	51,200,000
1954-55	28,800,000	25,000,000	- 2,500,000	22,500,000	52,400,000
			6 Year Total - - - - - - - -		$300,300,000

DESCRIPTION OF PROJECTS LISTED

Item 1 - Route 4 Parkway. Users of this route will benefit greatly by a reduction of accidents, cheaper car operation, time saving, avoiding traffic signals, etc. Economic analysis indicates that this project ranks among the highest in public benefit value with its need indicated by the Newark Origin and Destination Survey.

This route goes through a corridor through which the inadequate street systems carry a north-south movement of more than 110,000 vehicles daily. These streets are studded with many traffic lights and much parking along them. Through a system of calculation which is not claimed to be conclusive or perfect in result, since no accepted form for these calculations is available, the total losses to transportation due to all causes and in all traffic movements approximates $200,000,000 per year in Essex County. At the present time more than 10 miles of this route are under construction.

The construction of this route will remove from city streets volumes of traffic varying from 20,000 to 40,000 vehicles per day depending on location along the route.

Item 2 - Route 100 Freeway. This project ranks among the highest in benefits returned to the highway user for each dollar of investment. This route is particularly important in that relief of Route 25 through Rahway, Linden and Elizabeth is made difficult and costly to enlarge to the necessary capacity to handle traffic because of the expensive development along its course.

Route 25 now carries 45,000 vehicles per day through Elizabeth but has only a satisfactory capacity approximating 20,000 vehicles because of traffic lights and left turns and heavy trucking along the route. It was planned to carry these cross streets over Route 25 but public opinion prevented the carrying out of this plan. By the completion of this part of Route 100 the heavy shore traffic is intercepted as is part of Route 25 traffic from Raritan and removed from Route 25 through the heavily congested and high accident areas of Route 25.

Since the construction of this route has begun, the investment already made should continue to completion to give the traveling public the benefit of this relief.

Item 3 - Camden North-South Route and Camden Connection ranks among the highest in public benefit value. This route, in connecting the Camden Bridge Plaza with Route 42 in Turnersville, will remove traffic from Broadway and Camden's city streets as well as the Admiral Wilson Boulevard and Route 45. The traffic along this route is estimated to vary from 10,000 at the southerly end to 25,000 vehicles per day at the northerly end. This route is especially important to the center of Camden in that a relief from congestion should be realized in the business area of Camden, and leave that area free for that traffic having desire to go there.

The construction of this route will, on completion, attract to it and to Route 42, traffic which now uses Route 43 to go from the Philadelphia Metropolitan to the Atlantic City area.

Item 4 - Route 26 Extension in Trenton has been undertaken in part by the letting of a contract and the breaking of ground. It would have a very high public benefit value. This, again, is a vitally needed urban relief project which will result in the removal of 15,000 vehicles per day from such Trenton streets as Calhoun, Warren and Broad.

Item 5 - Route S-28 Spur. Route S-28 approaches New Brunswick stopping in the vicinity of the New Jersey College for Women. From this point traffic entering the city has no adequate facility for distribution. A major portion of this traffic winds its way via George Street to Albany Street.

The construction of this spur would entail the widening of Burnett Street from the vicinity of the New Jersey College for Women to Albany Street and provide a distributing artery for that traffic which desires to enter the industrial area of New Brunswick along the Raritan River.

It is estimated that approximately 4,000 vehicles will use this facility daily. This spur would later become a distributor for Route S-28 when that route is carried through New Brunswick to Somerville.

A preliminary estimate of this spur is placed at $1,500,000.

Item 6 - Essex County East-West Route, has been entered only as a partial project. The total cost is estimated in excess of $52,000,000. The reasoning applied to Route 4 Parkway in Essex County would apply to this route also. Studies for this project have just been completed by consultants. It is known that traffic volumes will be high and relief in this area is needed. A first step of this route would bring some relief to this area.

With the construction of Route 4 Parkway through Essex County a connection to a facility running easterly and providing entrance to the business area of Newark would be beneficial to the interest of that city.

By the combination of the Route 4 Parkway, which connects cities which are suburban to Newark, and an east-west facility to enter Newark, the people of these suburban cities are given a means of entering Newark over facilities which are far superior to any now in that area.

Item 7 - Palisades Parkway. This route carries through the Palisades Park in New Jersey from the George Washington Bridge to the New York State line and a connection with the proposed parkway in New York.

Its location is such that it is not easily reached by the citizens of Bergen County. By reason of its location, it will be of greatest service to New York motorists going from New York City to the Palisades and Bear Mountain Parks in New York State. Its length, approximately 10 miles, is so short that users of this route are unlikely to stop in New Jersey and enrich this State in any way.

It is estimated that this route will carry approximately 7,100 vehicles which will increase if the Parkway eventually makes a connection with the projected New York Freeway coming from Albany.

This route may then benefit New Jersey in that it will relieve Routes 17 and 4 of the traffic now using these routes in reaching New York.

It is for the above reasons that no estimated cost is shown for this project. The traffic on this route will be predominantly out of State and serious consideration should be given before State funds are applied to this project.

Item 8 - Bayonne Freeway is of short length. It will carry approximately 10,000 vehicles per day from Route 1 to the dock area of Bayonne and Jersey City. The Bayonne Peninsula has become a blighted area due in part to lack of transportation facilities. The trucking which now goes to the dock area must pass through the various residential streets to reach Avenue E and the industrial east side. This route will collect this traffic and by direct route will carry it to Avenue E for distribution and avoid interference in the residential part of Bayonne.

Item 9 - Route 25-A must be completed to Clifton Avenue in Newark to prevent the possibility of confusing the traffic problems on Broad Street. This project is partially constructed. It is planned to carry this work to Clifton Avenue to give proper distribution and dispersal of traffic in this area. Were this project to be halted with present contracts or the 1948-1949 program, traffic to and from this route would be concentrated on Route 21 and Broad Street, Newark. Both of these arteries are already heavily traveled and a concentration of turning movements at these points would make for intolerable conditions. This route will carry 40,000 cars per day over the river bridge, which has a satisfactory capacity of 48,000 vehicles.

Item 10 - Route S-4-B. Under existing appropriations this route is to be completed from Route 4 in Paramus to Maple Avenue, Fairlawn. Listed in the six year plan is a westerly extension of this route to Goffle Road in Passaic County. By completing this second stage of this route, the development of the residential area through which this route goes will be aided by the accessibility that will exist to that area. In addition to this advantage, traffic from the Hawthorne-Midland Park areas, which must now take devious routes and in some instances go through Paterson to get to the New York Metropolitan area, will be able to avoid the congestion in Paterson.

This route will carry an average of 6,000 vehicles per day and will benefit the area as well as the road user.

Item 11 - Route 21-Clay Street to Route S-3. A temporary State route from the easterly side of Newark extending to the Paterson area is now in operation along existing city and county streets. The desire lines of traffic, as revealed by the Newark Origin and Destination Survey, indicate the need of two main routes from Paterson to the south, one the western portion and one leading into and through the eastern part of Newark.

To fill this need and to remove State Highway traffic from city and county streets, it is recommended to extend Route 21 northerly to Route S-3. While this extension will not fill the entire need for transportation facilities between Newark and Paterson, it will partially do so by making it possible for Paterson to East Newark traffic to use good highway facilities by the Route 4 Parkway to Route S-3 to Route 21 Extension and thence along the extension of Route 21 to the industrial and business part of Newark. This route is estimated to carry approximately 20,000 vehicles per day.

Item 12 - Route 300. This route is under consideration for construction as a toll facility from the proposed Deepwater Bridge to a connection with Route 100. This combination of routes will then provide continuous expressway transportation facilities from Deepwater to Fort Lee with connections to the larger urban areas along its course and to the Holland and Lincoln Tunnels and the George Washington Bridge to the New York areas.

However, the northern and southern termini of the toll facility should be determined with care in order that an impairment of the State's free facilities does not result. The northern terminus may be located either to the south or to the north of the Raritan River. If, in establishing the toll authority, provision can be made for the future use, by the Highway Department with compensation to the Authority, of part of its right-of-way and the double-decking of the Raritan River Bridge, it is recommended that the northern terminus of Route 300 be located at its junction with present Route 100 in Woodbridge Township. These conditions are cited because the plans for New Jersey included, for economic reasons, a single crossing of the Raritan River for Route 300 and a future extension of the North-South route to Cape May.

The southern terminus is recommended at the northerly side of Route 48, leaving that part of Route 300 lying between Routes 44 and 48 to be financed from State Highway funds to insure its freedom from toll. The purpose of this is to prevent the discouragement of traffic from our neighboring States to the south, which might be attracted to the Atlantic City area over the new Delaware River Bridge and Route 48. This short 3½ mile piece of Route 300 is estimated to cost three million dollars.

Item 13 - Route 3 Secaucus By-Pass. The first stage of this route is presently under construction in Secaucus. The accompanying list of projects provides for the final stage of this project. This stage will complete the construction of a modern highway link from Route 6 in Passaic County to the Lincoln Tunnel. The traffic now using Route 3 in this area averages 22,000 vehicles per day. The improvement of this route will return in safety, time savings, convenience, etc., $9.00 for each dollar of investment.

Item 14 - Route 6 from Pine Brook to Route 23 is now a 2 lane bituminous highway carrying approximately 7,000 vehicles per day. This project is the remaining unimproved section of Route 6 from Denville to Little Ferry.

The Interregional Report of the President's Committee, states that when the volume on a 2 lane highway reaches 3,000 vehicles per day, it should be converted to a 4 lane divided highway.

Route 6 is one of New Jersey's three interstate routes, carrying heavy trucking to the Metropolitan Area of New Jersey and New York.

Item 15 - Removal of the Existing Passaic River Bridge. This bridge is located adjacent to and to the south of the new Route S-3 Passaic River Bridge, The new bridge will be completed at the end of this year. After that time the existing drawbridge will no longer be necessary and should be dismantled to clear the river of unnecessary obstructions and free personnel for work on other bridges.

Item 16 - Route 28-29 Connection. At the present time Interstate Route U. S. 22, New Jersey Routes 28 and 29, is improved or in the process of improvement from Newark to Chimney Rock and from North Branch to Clinton. Remaining is the section from Chimney Rock to Somerville, a three lane highway and no direct connection from Route 29 to North Branch, the path of the major volume of traffic using Routes 28 and 29. This traffic must now flow around the Somerville traffic circle and along existing Route 28 to North Branch and thence over the improved Route 28. This project shows a return of five times its cost in safety, time savings, etc., for the road user.

The Route 28-29 Connection will afford a direct line of travel from Route 29 in Somerville to the improved Route 28 at North Branch. This should remove approximately 7,500 vehicles per day from the Somerville Circle which is small. It will also reduce the travel distance of these vehicles. Trucking along this route is heavy and is of the heavy type.

Item 17 - Route 29 Chimney Rock to Somerville. This project with that of Item 16 will complete the conversion of Route 29 to a divided highway from Newark to Somerville. This project provides for a new 2 lane roadway north of the present 3 lane road, with westbound traffic using the new roadway and the existing road will be reserved for the eastbound traffic.

The traffic along this section of Route 29 approximates 13,000 vehicles per day with heavy trucking included. There is much coal and structural materials transported over this route.

This improvement will include the elimination of the Bridge Street-Route 29 intersection at grade which is hazardous to traffic. This section of Route 29 now has a high fatality rate.

Item 18 - Route 30 Trenton to Pennington. Route 30 from Trenton to Pennington carries 9,000 vehicles per day in Trenton and 5,000 vehicles per day at Pennington. The pavement width is insufficient for this volume of traffic. By an agreement made with the Freeholders of Mercer County and the Highway Department, at the time that the County road was taken over by the State, the State was obligated to add to the width of this route.

It is planned to relocate this route from Pennington to a connection with the Trenton Freeway. This project is included in the accompanying list of Substitution Projects. The greatest benefits of the project are derived from an improvement of the hazardous condition and greater freedom of movement.

Item 19 - Route 44 Dualization and Realignment. It is planned to continue the dualization and realignment of Route 44 from Pierce's Corner to Bridgeport. The traffic along this section of Route 44 amounts to 10,000 vehicles per day. This volume is too great for a 2 lane highway.

South of Bridgeport to the vicinity of Oldmans Creek, Route 44 has been dualized. The improvement of this route will lend much to the industrial development of that part of New Jersey along the Delaware River. A trend has started toward the movement of the establishment of the oil industry from the Philadelphia area to this Delaware River area.

The conversion of the southern part of this route to a 4 lane divided highway is recommended for delay. This recommendation for delay stems from the fact that the construction of Route 300 as a toll road is now a definite proposal.

It is felt that since toll roads are new to New Jersey and since in no venture of this kind is it sound economy to place a diverting facility,in competition with a toll facility,coincident with the opening of this new facility. It is, therefore, suggested that the improvement of Route 44 from Oldmans Creek south be delayed until such time as Route 300 toll road becomes an accepted fact by traffic and the improvement of Route 44 will not injure the toll project financially.

Item 20 - Route 25 Bordentown-Yardville. Route 25 from Newark to New Brunswick has been converted into a divided highway. Routes 100 and S-100 will relieve the congested portion through Elizabeth. From Route S-26 to Deans, and the section at Cranbury, Route 25 is planned for dualization under the curtailed 1948-1949 program, leaving the section from Yardville to Bordentown the next southerly section of Route 25 which is unimproved.

The suggested project consists of the dualization and relocation around Yardville, the addition of a center island and two lanes from Yardville to Bordentown, and the construction of the Route 39 and Route 25 separation of grades.

The traffic along this portion of Route 25 amounts to 6,800 vehicles per day. While the intersection of Routes 25 and 39 at Bordentown does not have an extremely bad accident record, the intersection of these important routes is potentially hazardous. At the present time this intersection is regulated by traffic lights and numerous signs to prevent accidents and congestion. This project shows a return of five times its cost with the greatest benefits accruing from increased safety.

Item 21 - Route 25 Haddonfield Road. From just south of Haddonfield Road northerly to the Rancocas Creek, Route 25 narrows from a divided highway. In this narrow area is the intersection of Haddonfield Road. The turning traffic at this intersection was not too important until the opening of the Camden Race Track. Since then, traffic interchanging between Haddonfield Road and Route 25 has increased to the point where the State Police has requested that the Department take steps to alleviate the traffic conditions at this point, and eliminate the need of a State Trooper to regulate traffic. In this improvement the construction of an overpass is included. Traffic on Route 25 is 13,000 vehicles per day.

Items 22 and 23 - Route 25 Bridgeboro and Burlington. Through both Bridgeboro and Burlington there exists short stretches of undivided highway through the business centers of these municipalities. It is planned to divide Route 25 in these locations and this, with the other improvements listed for Route 25, will complete the modernization of this route to Camden. Traffic at these locations averages 11,000 and 13,000 vehicles daily respectively.

Item 24 - Route 18 Old Bridge to Route 4. Route S-28 from New Brunswick terminates at Old Bridge. The continuation of this route, toward the North Jersey Shore resorts, is Route 18. In 1942 during the construction of this section between Old Bridge and Route 4, the War Production Board placed a stop order on all construction because of the war and the need of materials and manpower for the war effort.

The purpose of this project is to complete the work already started and to bring the route to a logical connection with another State route. The traffic along this route is estimated to be 5,000 vehicles per day and will serve to make this area more accessible and desirable.

Item 25 - Route 37 Island Heights Bridge. Under the current program provision is made to construct a new draw span, adjacent to the existing draw and viaduct across the Bay, and temporarily connect with the existing viaduct. This project provides for the extension of this new structure across the Bay to Seaside Heights.

The average volume across this structure is 4,000 vehicles per day. The summer volumes approximate 9,000 vehicles per day. The importance of this Bay crossing is emphasized by the fact that the nearest Bay crossing to the peninsula, between the Bay and Ocean, is located about 13 miles to the north over a county road.

Item 26 - Route 17 New York State Line to Franklin Turnpike. This portion of Route 17 is the only remaining section of 3 lane pavement. The traffic along this section is 9,500 vehicles per day. This volume is expected to increase when the New York Expressway is constructed to connect with this route at the New York State line. This section has a high fatality rate and the improvement thereof will greatly reduce these fatal accidents.

Item 27 - Route 17 Dualization and Overpasses. South of the section under Item 26 are some intersections which should be grade separated because of poor accident record. Between Routes 4 and 6 the installation of a center island is planned to increase the safety factor along this section of Route 17. The volume along this part of Route 17 varies from 11,000 to 18,000 vehicles per day. These improvements will make safer various intersections which now are dangerous.

Item 28 - Route 23 Smiths Mills to Hamburg. This project is for the general rehabilitation of Route 23 including the overpassing of the Lehigh and New England Railroad and a new bridge over the Wallkill River.

The traffic along this route varies from 3,100 vehicles per day north of Hamburg to 5,100 vehicles per day at Smiths Mills. This route is primarily a feeder to the Sussex Mountain area and carries a heavy summer traffic.

Item 29 - Route 6 Fort Lee to Little Ferry. It is planned to construct a center island and several interchanges along this route. Traffic along this route has increased to 20,000 vehicles per day. This traffic for the safety of the motorist should be divided for direction. In addition there are several intersections which should be grade separated. This route, to avoid premature obsolescence and continue to the benefit of the area through which it passes, requires the above improvement. The accident and fatality rates of this section are extremely high and improvement should not be delayed.

Item 30 - Route 4 Improvement-Fort Lee to Route 17. This project is in the same category as the project in Item 29. Volumes up to 25,000 vehicles per day are carried over this route between Paterson and Fort Lee. It is planned to close openings in the existing center island, construct center island and a grade separation.

Item 31 - Route 4 Parkway-Toms River By-Pass. Existing Route 4 now carries all traffic through the main business street of Toms River, congesting traffic movement within the limits of this municipality. To further complicate traffic movement in this area, Route 37 intersects Route 4 with the accompanying interchange of traffic between these routes making traffic conditions worse.

It is, therefore, planned to construct one link of the future Parkway to Cape May in this area to the west of Toms River and thereby relieve the congested condition in Toms River.

Item 32 - Route S-31 Branchville to Ross' Corner. This part of Route S-31 is still in the condition that it was when taken over by the State Highway Department. Its right-of-way in places is narrow with a building almost at the shoulder line. It is planned by this improvement to bring this route as nearly up to the State Highway standards as is economically justified by the safety and traffic of the route.

The traffic volume along this route is 2,700 vehicles per day with a somewhat higher volume during the summer months due to mountain resort travel.

The fatality rate of this section is almost twice the average for the State System and could be improved with this moderate expenditure.

Item 33 - Route 28 Musconetcong Mountain Improvement. This project lies between Clinton and Straw Church. The grades over the Musconetcong Mountain are 7.5%. The trucking and interstate bus traffic is heavy, since this is an interstate route and the traffic volumes are 6,000 vehicles per day.

The existing road is a 2 lane concrete highway over which many hours of delay are encountered by traffic during the winter months by reason of excessive grade, ice and snow. There is, therefore, a high accident potential.

It is planned by this project to reduce these grades and construct a 4 lane divided highway over this mountain to make it a safer and more easily negotiable transportation facility.

Item 34 - Route 56 Absecon Boulevard. This gateway to Atlantic City is constructed on a floating fill. This has resulted in settlement, along its course, which is most noticeable at bridges. The settlement has become so great as to become dangerous when higher than moderate speeds are attained.

The traffic over this route is 12,000 vehicles per day, and therefore, requires improvement and a division of directional traffic for the safety of the motorist.

Item 35 - Route 43 Improvement. This route has a bad accident record. Its average traffic over the route is 5,700 cars per day over its 47½ miles of length. Summer averages, however, are higher. It is planned to improve the hazardous areas of this route to Atlantic City.

From Hammonton to Absecon on the north side there is no shoulder and the pole line is immediately adjacent to the concrete riding surface of the highway. The setting back of the poles and the addition of a shoulder would make for a safer highway in this area.

Item 36 - Route 42 Improvement. With the completion of the Camden North-South Route connecting the Delaware River Bridge Plaza with Route 42 in the vicinity of Turnersville much of the Atlantic City traffic from the Philadelphia and Camden Metropolitan Areas will leave Route 43 and use Route 42 for its route. Route 42 from Turnersville to Williamstown has been improved.

However, since this route will increase in importance, it is recommended that this route between Williamstown and McKee City be improved to provide adequate and safe transportation for the increased volumes of traffic which will result from the construction of the Camden North-South Route.

The volume now using Route 42 averages 5,000 vehicles per day.

PROJECTS FOR SUBSTITUTION

A list of projects which may be used for substitution is hereto attached. This list also contains some high priority projects for which sufficient money is not available to include in the list of major projects to be constructed under this program.

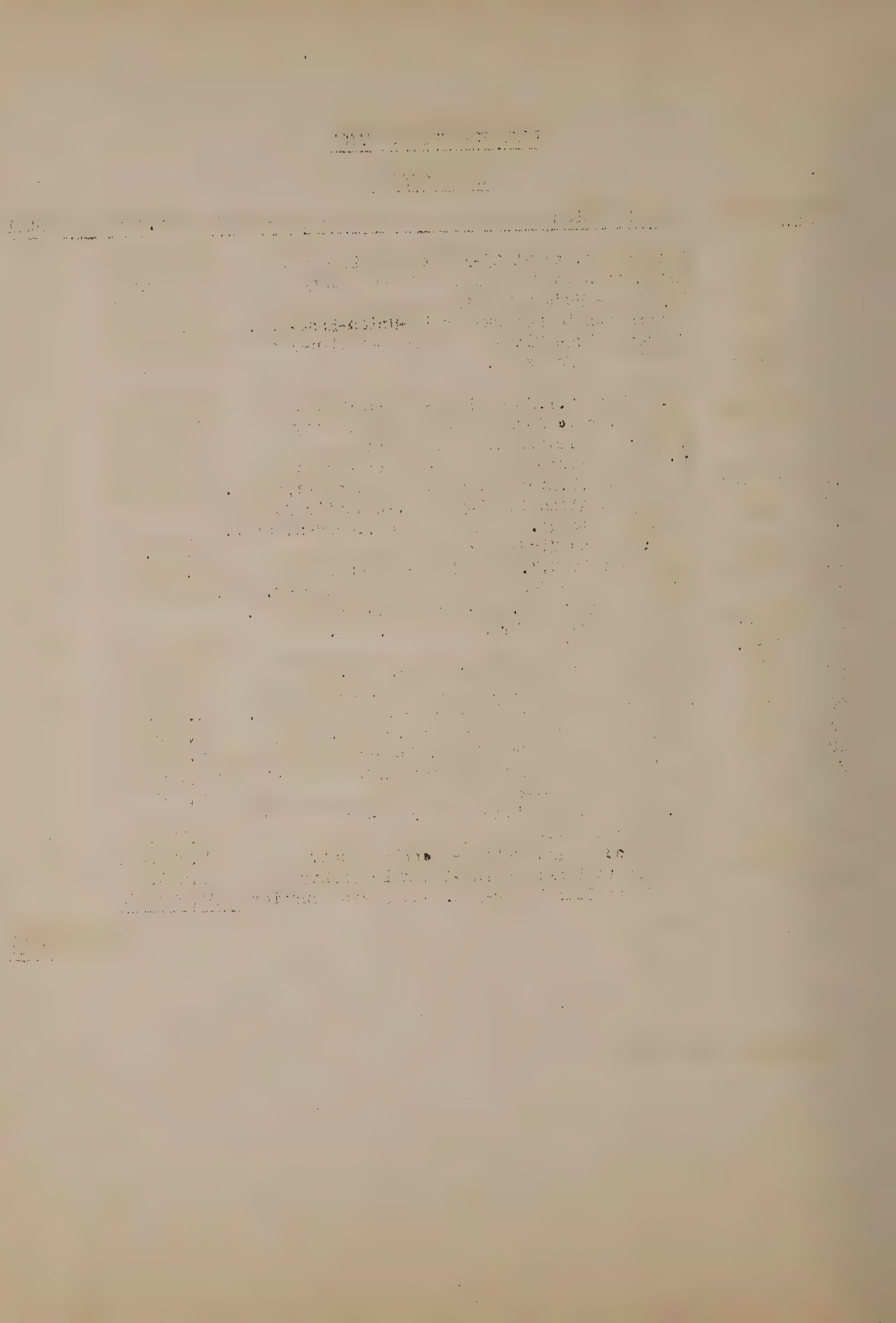
There are also included some projects which do not have as high priority but for which, through the years, there have been frequent requests for construction.

LIST FOR SUBSTITUTION

NEW PROJECTS

Item		Route	Location	Est.Cost	Total
1		21	Rutgers St. to Rt.S3-Essex-Passaic County	$6,000,000	
2		10	Livingston to Route 100 - Essex County	50,000,000	
3		1	Bayonne - Hudson County	8,000,000	
4		24	Morristown to Newark-Morris-Union-Essex Co.	45,000,000	
5			Camden Bridge Plaza to Marlton-Camden-Burl.Co.	15,000,000	
6		East-West	Facility - Essex Co.	40,000,000	
7		55	Rt. 100 to N.Y.State Line-Bergen County	20,500,000	
8		4 Pkwy.	Toms River to Forked River-Ocean County	10,000,000	
9		56	Absecon Boulevard-Atlantic County	2,500,000	
10			Trenton - East-West Route-Mercer County	8,000,000	
11		4 Pkwy.	Rt. 6 to N.Y.State Line-Passaic and Bergen Co.	20,000,000	
12	*		Camden to Atlantic City-Burl.-Atlantic County	65,000,000	
13	*	300	Deepwater to Rt. 100-Salem,Glou.,Camden,Burl., Monmouth and Middlesex Counties	85,000,000	
14		101	Carlstadt to N.Y.State Line-Bergen County	20,000,000	
15		S-28	Somerville to New Brunswick-Somerset-Midd. Co.	15,000,000	
16	*		South Amboy to Rt. 33-Middlesex-Monmouth Co.	30,000,000	
17		Trenton Pkwy.	Rt. 4 Parkway to Trenton-Union,Midd. and Mercer Counties	63,000,000	
18		S-28	New Brunswick to Keyport-Midd.-Mon.County	12,000,000	
19		51	Bridgeport to Williamstown-Glou.County	1,000,000	
20		S-4-B	Maple Avenue to Oakland-Bergen and Pass. Co.	5,000,000	
21		36	West Long Branch to Long Branch-Mon.County	3,000,000	
22		29-A	Lambertville to Frenchtown-Hunterdon County	6,000,000	
23			Rt. 31 Rocky Hill to Hightstown-Somerset-Mercer	10,000,000	
24			Deepwater to Salem - Salem County	4,000,000	
25			Rt. 49 at Dennisville to Rt. 50-Cape May and Atlantic Counties	7,000,000	
26			Ledgewood to Lafayette - Morris County	10,800,000	
27		4 Pkwy.	Absecon to Somers Point-Atlantic County	8,500,000	
28	*		Rt. 33 to Toms River-Mon. and Ocean Counties	20,000,000	
			TOTAL		$590,300,000

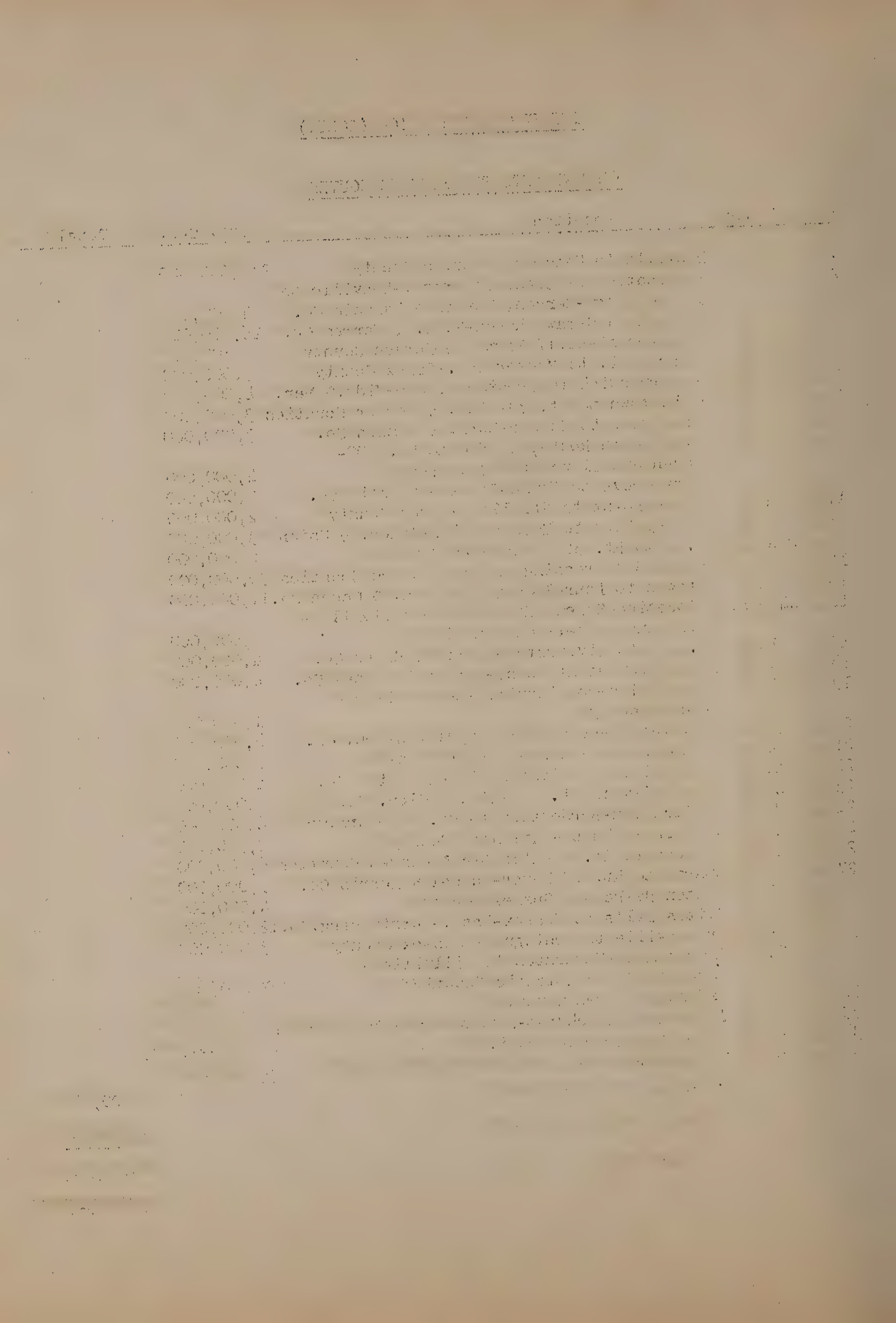
* Suggested Toll Routes



LIST FOR SUBSTITUTION (CONT.)

IMPROVEMENTS TO EXISTING ROUTES

Item	Route	Location	Est. Cost	Total
1	6	Denville to Netcong - Morris County	$18,000,000	
2	6	Elimination of Grade Intersec.-Denville to Little Ferry-Bergen, Morris & Passaic Co.	4,000,000	
3	28	Clinton to Straw Church-Hunt. & Warren Co.	25,000,000	
4	4	Improvement-Rt.17-Fort Lee-Bergen County	600,000	
5	29	Newark Jct. to Meeker Ave.-Essex County	3,000,000	
6	26	New Brunswick to Trenton Circle-Midd.& Mer.	4,000,000	
7	25	Bonhamtown to Rt. 33-Midd. & Mercer Counties	3,000,000	
8	25	Bordentown to Camden-Burl. & Camden Co.	3,000,000	
9	45	North-South Route, Camden to Rt. 300-Camden and Gloucester Counties	4,000,000	
10	23	Cedar Grove to Wayne-Essex & Passaic Co.	9,000,000	
11	4	Warren Point to Rt. 17 - Bergen County	2,000,000	
12	29	Chimney Rock to Mountainside-Somer. & Union	3,000,000	
13	4 Alt.	Rt. 4 to Rt. 34 - Monmouth County	2,000,000	
14		Newark Bay Crossing-Essex & Hudson Counties	30,000,000	
15	34	Matawan to Laurelton Circle-Mon. & Ocean Co.	11,000,000	
16	44 & 49	Relocation-Salem, Bridgeton & Millville - Salem and Cumberland Counties	7,000,000	
17	10	Rt. 5-N to Livingston-Morris & Essex Co.	4,000,000	
18	31	Relocation at Stanhope-Morris & Sussex Co.	4,000,000	
19	33	Dualization-Robbinsville-Mercerville - Mercer County	1,600,000	
20	36	Dualization-Keyport to Highlands-Mon. Co.	4,000,000	
21	31	Hightstown By-Pass - Mercer County	2,000,000	
22	48	McKee City to Atlantic City-Atlantic Co.	4,000,000	
23	42	McKee City to Rt. 300-Atl. & Glou. Co.	7,000,000	
24	39	Dualization-Bordentown to Rt. 300-Burl.Co.	6,000,000	
25	43	Absecon By-Pass - Atlantic County	3,500,000	
26	43	Absecon to Rt. 39-Atlantic & Camden Counties	6,000,000	
27	6-A	Sparta to Rt. 10 Dover-Sussex & Morris Co.	9,000,000	
28	31	Newton By-Pass - Sussex County	4,000,000	
29	23	Smiths Mills to Sussex-Pass.-Morris-Berg.Co.	12,000,000	
30	S-31	Branchville to Montague - Sussex County	3,000,000	
31	54	Improvement-Hammonton to Millville - Cumberland and Atlantic Counties	7,000,000	
32	30	Oxford - Warren County	600,000	
33	37	Trenton to Lakehurst-Mercer-Mon.& Ocean Co.	18,000,000	
34	30	Relocation-Mercer County	3,000,000	
35	32	Morristown to Bedminster-Morris County	10,000,000	
		TOTAL FOR IMPROVEMENTS		$237,300,000
		TOTAL FOR NEW PROJECTS		590,300,000
		GRAND TOTAL		$827,600,000



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